Physical Fitness for Physical Red Teaming

2024 Edition



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What you will learn

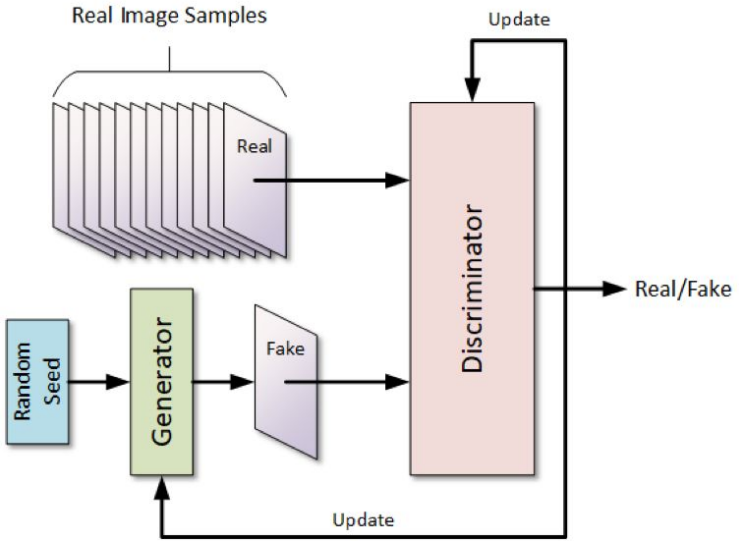
- Hacking Physical Spaces with the Human Body
- Red-Team Fitness





Hacking Spaces with the Human Body

- Brute Force
- Fences
- Climbing
- Spelunking
- Brute Force
- Speed
- Ropework



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Brute Force

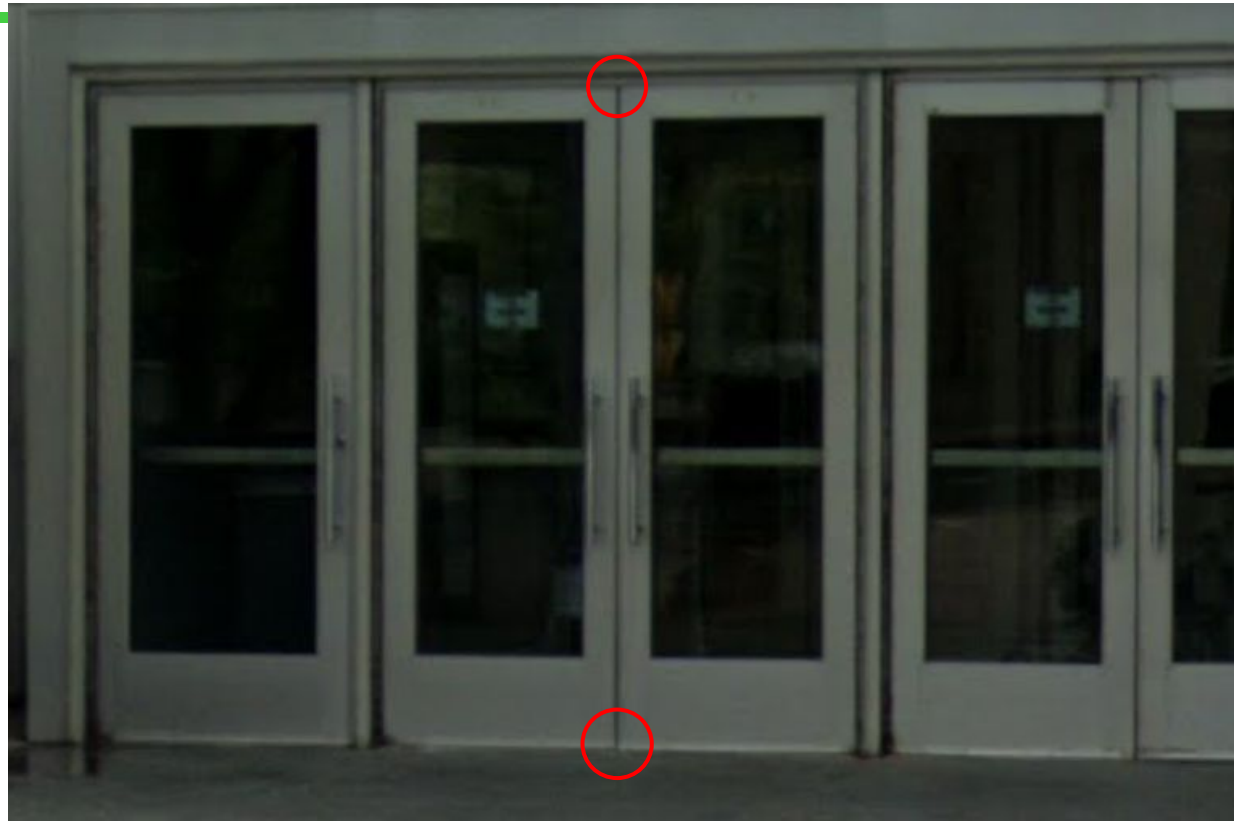
- Deformation in latching mechanisms and frames
- Elastically deforming double doors to unlatch the top and bottom
- Lifting heavy garage doors
- Pulling a door to the side in it’s frame
- Lifting and pulling to unpin double latch doors



Brute Force



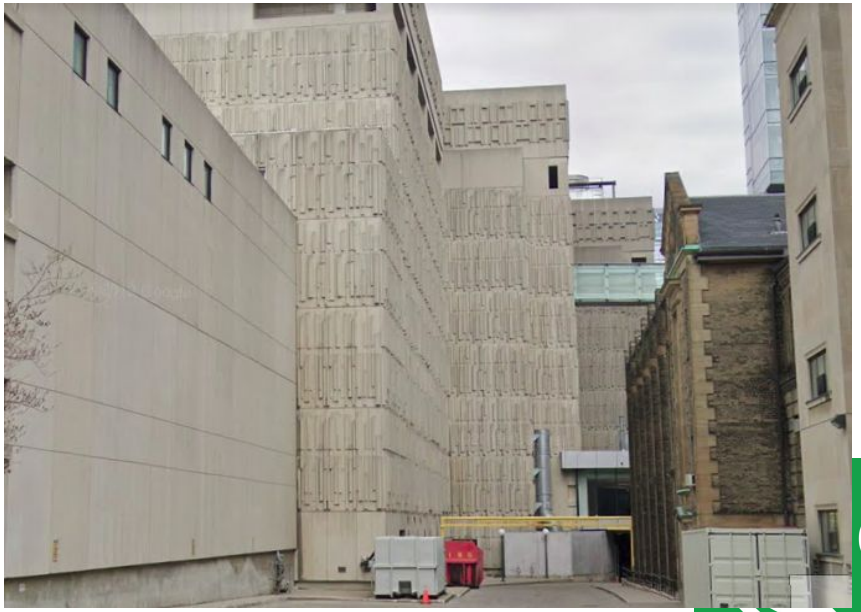
Brute Force



Climbing

- False Ceilings
- Pipe Shafts
- Elevator Shafts
- False Floors
- Building Exteriors
- Scaffolding





Climbin



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Climbing







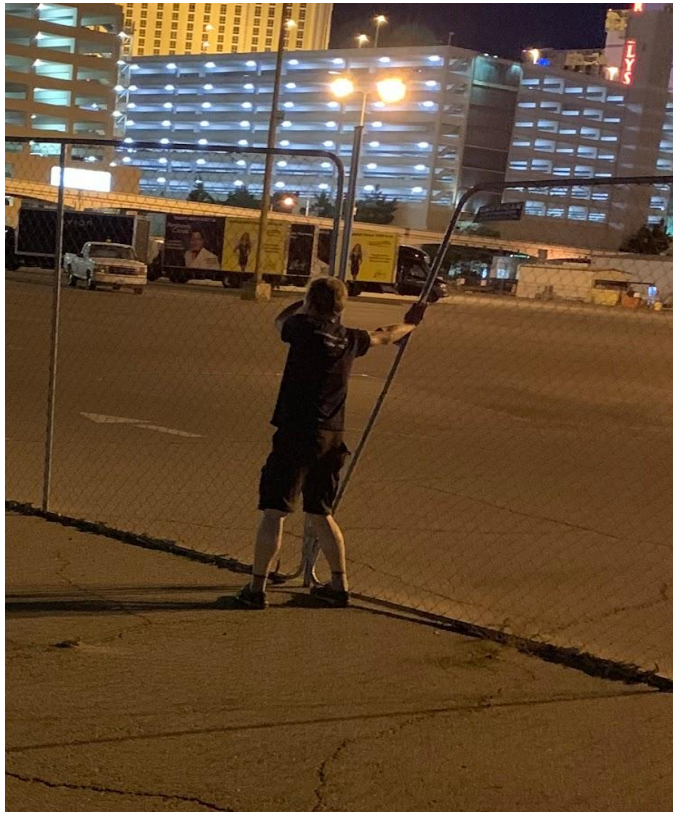
Fences



Fences



Fences





Fences



Fences

- Rappelling, Ascending
- When it’s too far or you can’t climb up or down





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Speed

- Does it matter if you set off every alarm if you're in and out before security reaches the building?
- Evading K9
- Zigzagging, bikes, backtracking, climbing, and fountains



Speed - 31 Seconds

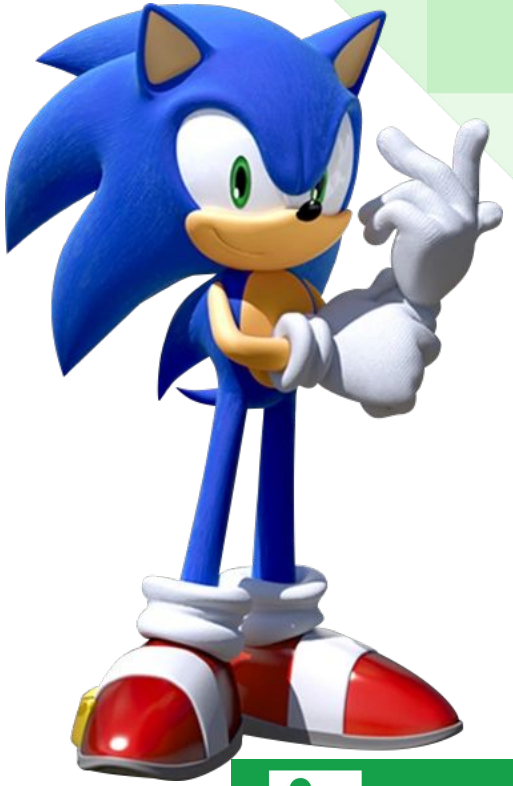




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Speed - 13 Seconds





Speed - 12 Seconds ($27,000)





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Persistence

- Some security fails may be extremely rare, but if you check daily, it becomes much more likely to catch
- Take advantage of rare events:
    - False alarms
    - Keys left out
    - Piggybacking someone who has credentials to enter
    - Doors left open/unlocked
- It only takes one slip in security



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Persistence

Police: Men arrested for Popeyes burglary entered through unlocked doors

by Marshall Keely | Monday, January 13th 2020



Part II: Red Team Physical Fitness

- Preparation
- Workout Planning
- Diet Planning



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The Math

- Get your 150 Hours of moderate to severe exercise!
- 1 minute exercising results in 2.54 minutes of additional life
- 2.5 - 1 = 90 seconds of bonus life!
- It’s really to overdo it (unless you’re training more than an athlete)





The Math

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Leisure Time Physical Activity of Moderate to Vigorous Intensity and Mortality: A Large Pooled Cohort Analysis

Steven C. Moore ✉, Alpa V. Patel, Charles E. Matthews, Amy Berrington de Gonzalez, Yikyung Park, Hormuzd A. Katki, Martha S. Linet, Elisabete Weiderpass, Kala Visvanathan, Kathy J. Helzlsouer, Michael Thun, Susan M. Gapstur, Patricia Hartge, I-Min Lee

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The Fundamental Movements

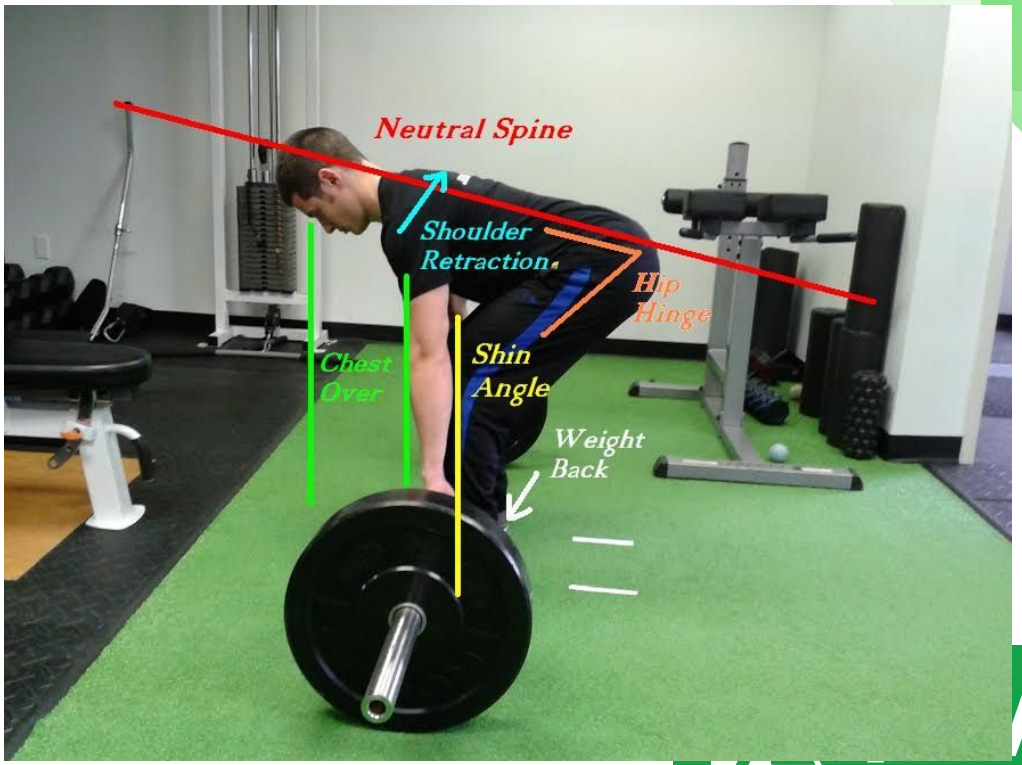
- Push
- Pull
- Squat
- Hip-Hinge
- Twist (Clockwise)
- Twist (Anti-Clockwise)
- Farmer’s Carry

Traditional Strength Training

- Deadlift
  - Hip Hinge
  - Anterior Chain
- Bench Press
  - Horizontal Push
- Barbell Row
  - Horizontal Pull
- Overhead Press
  - Vertical Push
- Pull-Ups
  - Vertical Pull

The Deadlift

- Single best comprehensive exercise for your health
- Best antidepressant
- Fix your
  - Grip Strength
  - Posture
  - Back Pain



Squatting



As Essential as Brushing Your Teeth: The Deep Squat

Georges Dagher, DC, CSCS

Key words: Deep Squat, Joint health, Range of Motion, Posture, Movement Pattern, Rehabilitation, Exercise, Culture.

INTRODUCTION

The primary focus of this article is to discuss joint function through the lens of the deep squat. The ability to squat is not simply a trendy exercise performed under a barbell at the gym; we practice the squat movement everyday while sitting on our office chairs or sliding into our cars from the side. The deep squat from a joint hygiene perspective is akin to brushing our teeth. We do not simply brush the top one day, the bottom another day, and the side or back whenever we feel like it; we brush every angle of our teeth everyday. From my perspective, the deep squat movement is a toothbrush for our joints, ensuring they are all moving without any sticky or restricted areas.

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Cardio / HIIT

- Speed is Key
- Jog/Run/Sprint
- Swimming
- Goal setting
- Red Team consideration
  - Blue team fitness
  - Environment
  - Element of Surprise
  - Check point bypass

	Minimum Standards	Competitive Standards
500 Yard Swim	12:30	8 Minutes
Pushups	50	80-100
Sit-ups	50	80-100
Pull-ups	10	15-20
1.5 Mile Timed Run	10:30	9-10 Minutes



Climbing / Bouldering

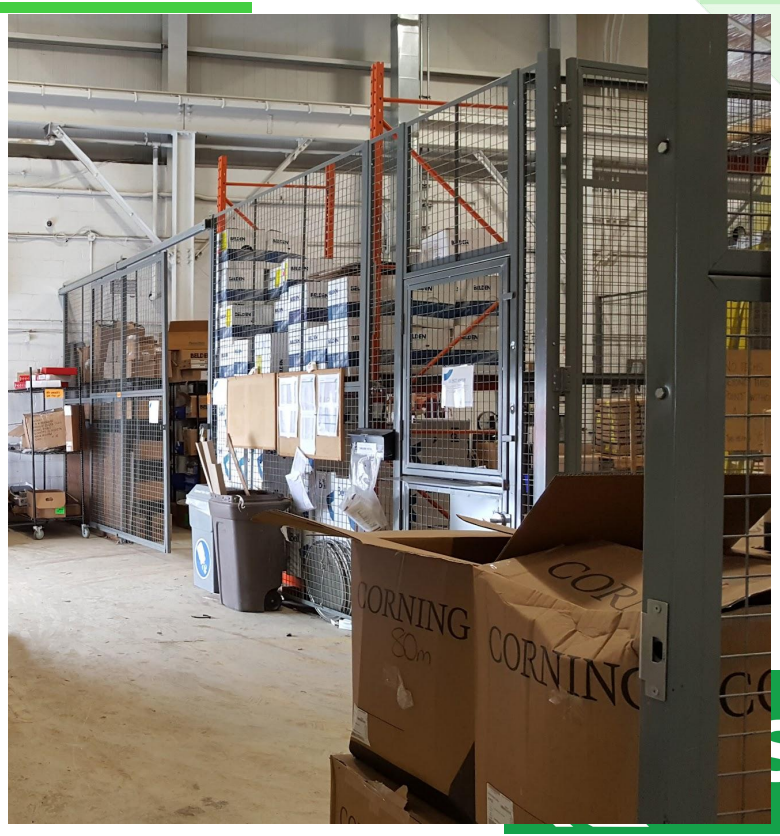
- Best Red team tool
- Combination of upper body and back
- Forearm and hands

- Sports considerations
  - Rock climbing
  - Bouldering
  - Parkour

Climbing / Bouldering

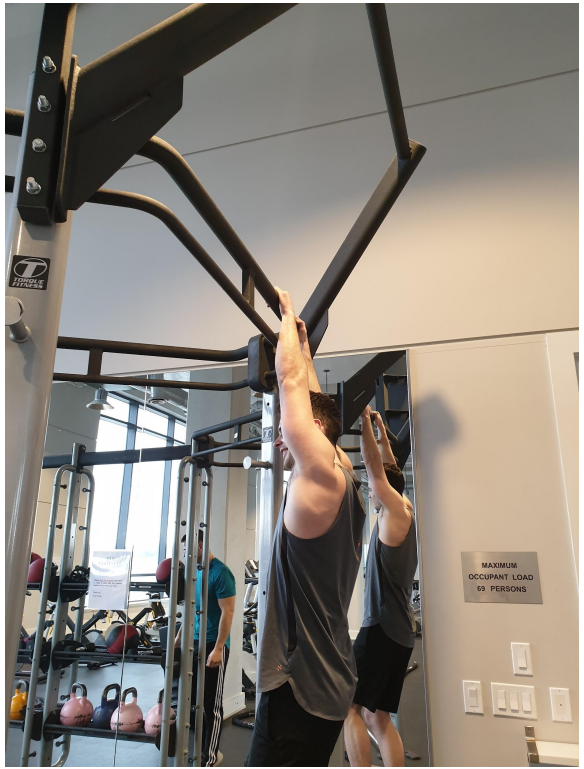
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Climbing / Bouldering





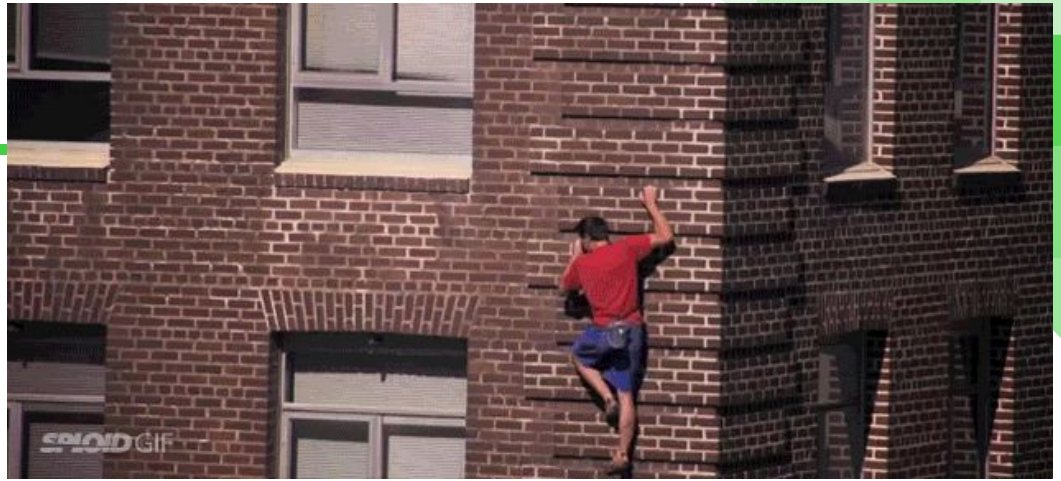


Climbing / Bouldering





Climbing / Buildering



- Pull ups
- Compound movements
- Grip width
- Depth of pullups
- Lats, arms, back, forearm, Grip
- Muscle up

Climbing / Buildering





Climbing / Buildering



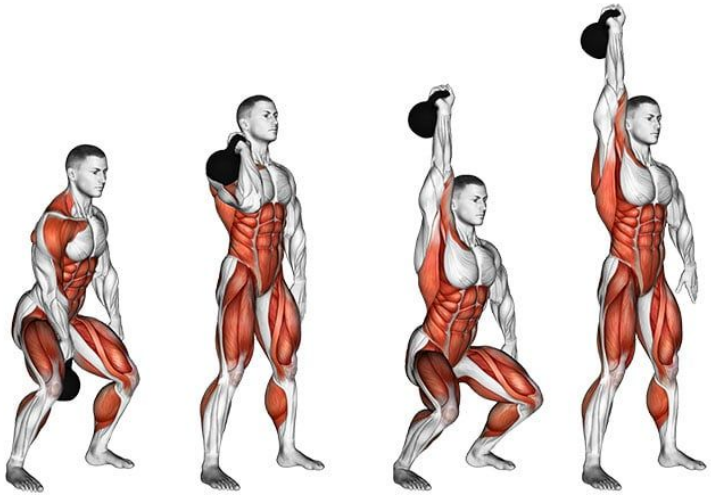


Climbing / Buildering

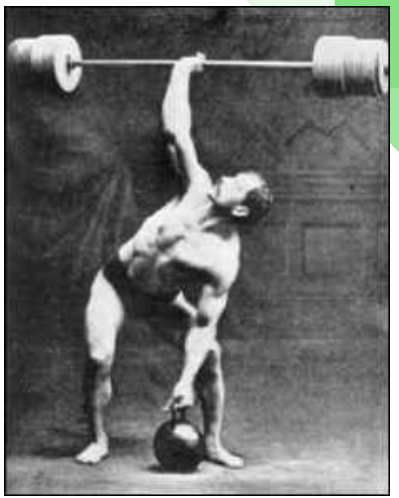


Minimalist Training: Kettlebells

- Snatch
- Kettlebell Swings
- Bent Press







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Minimalist Training: Kettlebells

- Snatch, Swing, and Bent Press are total body workout
- Comprehensive gym that fits in a closet
- “You don’t own a kettlebell, you merely look after it for the next generation.”



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Ultra Minimalist Training: Prison Style

- Burpees
- Squats

- Dip Bars
- Pull-Ups

- One-Arm Pushup
- One-Leg Squat
- Handstand Pushups

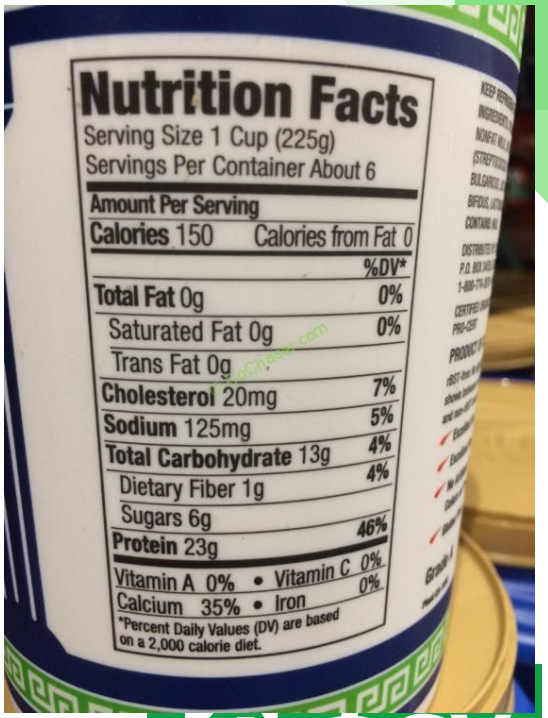


Diet

- Calculate Macro
  - Protein
  - Carb
  - Fat

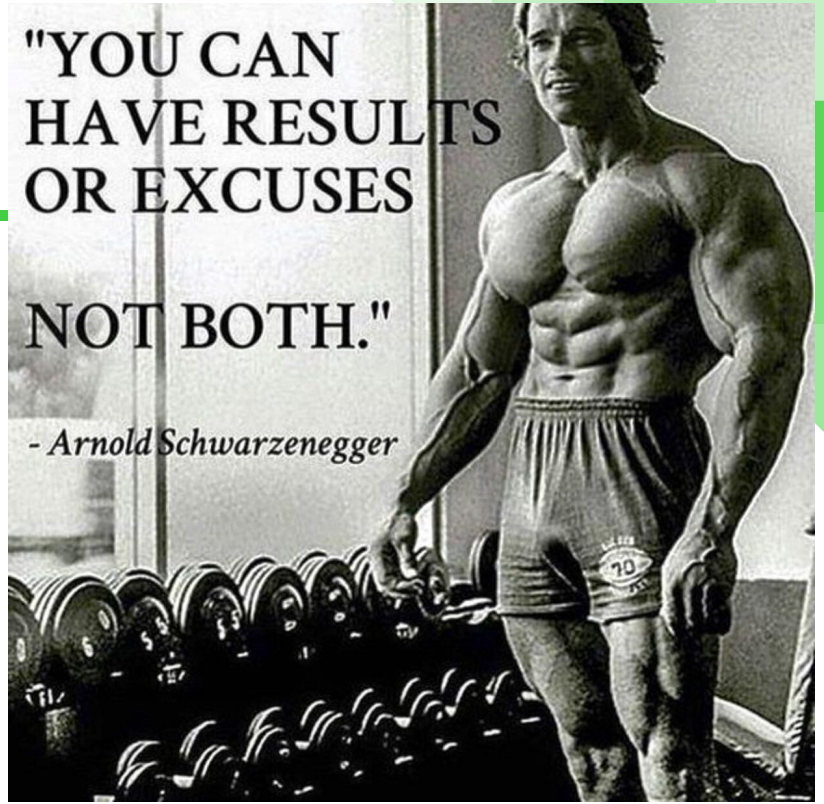
Nutrition Facts
Valeur nutritive
Per 300 mL / par 300 mL

Amount / Teneur	% Daily Value / % valeur quotidienne
Calories / Calories 150	
Fat / Lipides 0 g	**0 %**
Saturated / saturés 0 g + Trans / trans 0 g	**0 %**
Cholesterol / Cholestérol 0 mg	
Sodium / Sodium 15 mg	**1 %**
Carbohydrate / Glucides 38 g	**13 %**
Fibre / Fibres 0 g	**0 %**
Sugars / Sucres 36 g	
Protein / Protéines 0 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	0 %
Calcium / Calcium	2 %
Iron / Fer	0 %



Conclusion

- Get your 150 minutes a week!
- Do whatever is easiest for you to consistently do
- Discipline == Freedom



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DC416 - Physical Security Workshop

2023 Wrapup



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Fences

- Show of hands:
  - Who is coming from the DC / ethical hacking culture
  - Who is a student?
  - Who works/has worked in infosec?
  - Who works/has worked in red teaming (physical or cyber)?
  - Who works in physical security?
- Get to know a table full of new people
- Get to know your tablemates!

